



DEPARTMENT OF THE NAVY
NAVAL AIR STATION
ALAMEDA, CALIFORNIA 94501

N00236.000180
ALAMEDA POINT
SSIC NO. 5090.3

IN REPLY REFER TO:

Ser ON *X* 664
17 MAY 1983

Regional Administrator
Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, California 94105

Gentlemen:

Navy Assessment and Control of Installation Pollutants (NACIP) is the Navy's effort to identify and mitigate problems of environmental contamination at shore facilities resulting from the storage, use and disposal of hazardous materials. The Naval Energy and Environmental Support Activity, Port Hueneme has completed an initial assessment study for the Naval Air Station, Alameda. We are enclosing a copy of the study for your information. The study identified no areas which pose an imminent threat to public health or the environment.

We are also enclosing the results of initial monitoring for priority pollutants conducted at Site 1 in the study. The results indicate minimal levels of pollutants in Site 1. Follow-up monitoring in Site 1 and monitoring in Sites 2 through 7 will be carried out as part of a confirmation study to be conducted by the Western Division, Naval Facilities Engineering Command, San Bruno, California. Corrective projects, if required will be based on the information developed in the confirmation study.

Should you have any questions concerning the NACIP program or the study, our point of contact is my Environmental Protection Officer, Mr. Joseph Shandling, telephone (415) 869-4637.

Sincerely,

D. G. Richmond
D. G. RICHMOND
Captain, USN
Commanding Officer

Encl:

- (1) Initial Assessment Study of Naval Air Station, Alameda, California
NEESA 13-014
- (2) Sampling Analysis for 129 Priority Pollutants at West Beach Landfill

REPRODUCED AT GOVERNMENT EXPENSE



April 13, 1983

2176,059.01

Commanding Officer
Western Division
Naval Facilities Engineering Command
P. O. Box 727
San Bruno, California 94066

Attention: Code 405
Mr. James Washington

Gentlemen:

This letter presents the results of Harding Lawson Associates' (HLA) ground-water sampling and water chemistry testing for the Alameda Naval Air Station landfill which has been inactive since about 1977.

BACKGROUND

Starting in 1976, HLA has performed various studies of the landfill and its operations. The results of those studies were summarized in our report dated March 1, 1978. In 1982, HLA completed plans and specifications for closing the landfill which included constructing dikes and weirs so that the area could be used for the disposal of dredged materials.

Prior to our recent assignment, water quality monitoring was performed by HLA in 1976 and 1977 for our March 1978 report. The water samples were tested for parameters normally associated with sanitary landfills which were of concern to the California Regional Water Quality Control Board at that time. The only parameters relevant to this assignment were the heavy metals and oil and grease.

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Recently, a draft copy of the Initial Assessment Study (IAS) of Naval Air Station, Alameda, California, dated February 1983, by Ecology and Environment, Inc., was available for review. It indicated that large quantities (405,000 tons) of solvents, oil, and heavy metals were among many possible contaminants which may have been placed in the landfill during its existence. Our letter of March 2, 1983, provided initial review comments of the IAS study. In our letter, we recommended that as many of the existing monitoring wells in the landfill that could be found be sampled and water quality tests be performed to indicate if the alleged materials were present in the landfill in sufficient quantity to be of concern.

As the IAS report was to be published in final form early in April of 1983, the work was to be completed quickly so that the results could be used in the report. This necessitated a rapid field sampling and testing program.

SAMPLING AND TESTING

Since 1977, some minor grading has been done and some dredged sand has been placed in the southerly portion of the site. During the grading, apparently some of the monitoring wells were destroyed. In addition, some wells could not be located because they were either under water or hidden by high grass which covers much of the site. For these reasons, we were only able to locate six of the original 15 observation wells. Samples also were taken from water which was ponded in the area of Observation Wells 6 and 12.

The sampling was performed on March 16 and 17, 1983. Prior to sampling each observation well, at least five well volumes of subsurface water were withdrawn. The water samples were placed in containers* such that the head space was zero to prevent the loss of any volatile constituents. At the end of each day, the samples were taken to Analytical Science Associates (ASA) of Emeryville, California, for laboratory testing using chain of custody procedures. The testing included gas chromatograph scans for the Environmental Protection Agency's list of 129 priority pollutants. On March 31, 1983, the results were transmitted to you by telephone. A copy of the ASA test report with well numbers added is attached.

*40 milliliter glass vial, 1 liter glass bottle and 250 milliliter plastic bottle.

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Harding Lawson Associates

CONCLUSIONS

We have reviewed the test data and compared it, where possible, to the previous test data from the monitoring wells. Although less than half of the wells were located and sampled, the results of the samples taken from the widely scattered observation wells indicate that:

1. The heavy metal concentrations are about the same as they were in 1977 (all less than one part per million)
2. No volatile or base neutral fractions were detected
3. The acid fraction contained only a trace of phenol
4. The total identifiable chlorinated hydrocarbon (TICH) fraction indicated a slight trace of PCB

Based on this analysis, it does not appear that significant amounts of materials are present in the landfill at hazardous levels.

If you have questions concerning our work or wish us to discuss the results with you, please call.

Yours very truly,

HARDING LAWSON ASSOCIATES

Lyle E. Lewis

Lyle E. Lewis,
Civil Engineer - 16360

LEL/JCD/jd

5 copies submitted

cc: NEESA

Port Hueneme, California 93043

Attention: Code 112N John Accardi

Building 835, Wing 2 Room 200F

ANALYTICAL SCIENCE ASSOCIATES, Inc.

APR 11 1983

4560 HORTON ST. • EMERYVILLE, CA 94608 • (415) 547-6390

HLA Project No. 2176,059.01
April 1, 1983

ABSTRACT

Samples were received from the Alameda Naval Air Station on March 16 and 17 for the screening of Priority Pollutants. No contaminants were detected in the volatile or Base-Neutral fraction. The acid and pesticide fractions contained traces of phenol and polychlorinated biphenyls. No metals were detected above 1 ppm.

METHODS

I Volatile Fraction

Samples were analyzed by gas-chromatography^(1,2) for the volatile priority pollutants using GCFID and GCHSD under the following analytical conditions:

Instrument	: Perkin Elmer 3B
Column	: SP 1000/Carbopack B
Program	: 50 ⁰ -200 ⁰ @ 8 ⁰ /minute

II Base Neutral/Acid Fraction

Samples were analyzed by GCFID under the following analytical conditions:

Instrument	: Perkin Elmer 3920
Column	: 1% SP2150 DB; Tenax 60/80
Program	: 50 ⁰ -270 ⁰ @ 8 ⁰ /minute; 180 ⁰ -300 ⁰

III Pesticide Fraction

The 6, 15 and 50 percent Florisil fractions were analyzed⁽³⁾ by GCHSD under the following conditions:

Instrument	: Perkin Elmer 3B
Column	: 3% OV1
Temperature	: 180°C

IV Metals

Samples were filtered (0.45 um) and analyzed by Atomic Absorption spectroscopy.

RESULTS

Data are presented in Table I. Only the actual organic components found have been reported.

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1. 40 CFR, part 141 app. C
 2. Sampling and Analysis Procedures for the Screening of Industrial Effluents. EPA 1979
 3. Methods for the Organic Analysis of Water and Wastes. EPA 1980.

LANDFILL WELL NO.	TABLE I							
	17	18	3	19	9	8	near 6	near 12
Sample ID	9001	9002	9003	9004	9005	9006	9007	9008
Cadmium	0.053	0.03	0.024	0.024	0.018	0.011	0.012	0.009
Copper	0.72	0.06	0.06	0.04	0.04	0.03	0.06	0.08
Lead	0.17	0.09	0.07	0.05	0.06	0.06	0.07	0.06
Selenium	0.08	0.04	0.03	0.04	0.04	0.04	0.03	0.04
Silver	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05
Zinc	0.48	0.13	0.038	0.032	0.16	0.013	0.044	0.076
Oil & Grease	30	20	15	50	80	40	20	15
Phenol (ppb)	26	11	k10	k10	11	10	11	10
TICH (ppb, as arochlor 1248)	0.52	0.08	0.05	0.60	0.40	k0.05	0.20	0.10
Arsenic	0.09	0.06	0.05	0.06	0.04	0.04	0.05	0.05
Beryllium	0.012	k0.01	k0.01	k0.01	k0.01	k0.01	k0.01	k0.01
pH	7.4	7.0	7.3	7.1	7.2	7.2	7.5	7.7
Conductivity	6400	19,000	13,000	16,000	2700	3500	1500	1300
Nickel	0.11	0.11	0.10	0.13	0.12	0.07	0.06	0.07

All values in ppm unless otherwise noted.

ADDENDUM

LANDFILL WELL NO.	17	18	3	19	9	8	near 6	near 12
Sample ID	9001	9002	9003	9004	9005	9006	9007	9008
Chromium	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05	k0.05
Mercury	0.0008	k0.0001	k0.0001	k0.0001	0.0002	k0.0001	k0.0001	k0.0001
Magnesium	120	420	420	420	57	68	33	35

All values in ppm unless otherwise noted.

k = less than value